

## REMARKS

Claims 1-37 are pending in the application and stand rejected.

### Drawing Objections

In response to the drawing objections, Applicant submits herewith a set of formal drawings for Figs. 1-9. Withdrawal of the objection is thus requested.

### Claim Rejections - 35 U.S.C. § 102

Claims 1-9 and 11-37 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,119, 147 to Toomey. Applicant respectfully traverses the rejection.

Under 35 U.S.C. 102, a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. The identical invention must be shown in as complete detail as is contained in the claim. (See MPEP § 2131). The single prior art reference must disclose all of the elements of the claimed invention functioning essentially in the same manner (see, Shanklin Corp. v. Springfield Photo Mount Corp., 521 F.2d 609 (1<sup>st</sup> Cir. 1975)).

Here, it is respectfully submitted that *at the very minimum*, Toomey does not disclose or suggest elements of the inventions of independent claims 1, 19 and 29. Indeed, on a fundamental level, one of ordinary skill in the art would readily recognize that the teachings of Toomey are unrelated to the claimed inventions, and clearly do not anticipate the claimed inventions.

In particular, Toomey is directed to a system for supporting a collaborative work environment, which enables a plurality of participants to review and augment meetings that take place in a virtual environment (see, Col. 1, lines 8-14 and lines 47-54). More specifically, in Figs. 1 and 2, Toomey discloses a computer-mediated asynchronous meeting system (100) that enables a plurality of participants (who are remotely located in space and/or time from each

other) to *asynchronously* interact with a multi-modal document (105) through a plurality of UIs/displays (120) connected to the system (see, e.g., Col. 5, lines 11-23).

Toomey further discloses that the *multi-modal document (105)* is a data structure that stores a combination of the participants' collaborative interactions, i.e., the *multi-modal document (105)* captures all the meeting events of participants to the meeting. More specifically, the *multi-modal document (105)* comprises a combination of data structures associated with a related virtual meeting, including text discussion, audio recordings, graphics, documents and agendas, to provide a complete context of a meeting for subsequent participants (see, Col. 5, lines 24-32; Col 6, lines 5-21). The Toomey system (Fig. 2) includes an augmentation controller (220) allowing annotation to the multi-modal document (105) associated with a given meeting.

Toomey clearly does not anticipate the invention of claim 1. Claim 1 is directed to a system comprising:

*a multi-modal application comprising at least a first mode process and a second mode process;*

*a multi-modal shell for managing and synchronizing information exchanges between the first and second mode processes of the multi-modal application; and*

*an API (application program interface) that allows the first and second mode processes to register their respective active commands and corresponding actions with the multi-modal shell.*

Examiner contends that the multiple user interfaces/displays (120) of Fig. 2 of Toomey disclose a multi-modal application with a first and second mode processes. Applicant respectfully disagrees with this characterization. A multi-modal application is an application

that can be controlled by commands in two or more modalities, e.g., an e-mail application that allows a user to access e-mails by a voice commands or GUI commands. The UI/displays (120) of Toomey are nothing more than clients that enable users to, e.g., input meeting events (e.g., text inputs, prerecorded sound files, etc) that are recorded by the system in a multi-modal data structure (i.e., the MM document (105)).

Further, although Toomey discloses that each user can run and instance of a “client software program to join others in virtual space” (see, Col. 6, lines 38-41), there is nothing in Toomey that discloses that such “client software program” is a multi-modal application that comprises *a first mode process and a second mode process*. Indeed, although Toomey discloses that a user can provide input events such as text utterances (i.e., text strings”) or sound cues (i.e., prerecorded sound) via the “client software program” (see, Col. 6, lines 38-65) that are recorded in the multi-modal document (105), there is nothing in Toomey that remotely discloses or suggest that the “client software program” can be commanded by different modes.

Examiner further contends that the *multi-modal capture controller (230)* of Toomey discloses *a multi-modal shell for managing and synchronizing information exchanges between the first and second mode processes of the multi-modal application*, as recited in claim 1. Applicant respectfully disagrees with this characterization. Toomey expressly discloses that the *multi-modal capture controller (230)* is a module that captures and records the different input events (text inputs, sound files, etc.) that are provided by participants during a meeting (recording of each event in the multi-modal document) (see, e.g., Col. 5, lines 55-59; and Col. 16, lines 60-61). There is nothing in Toomey that discloses or suggests that the multi-modal capture controller (230) *manages and synchronizes information exchanges between a first and second mode processes of a multi-modal application*.

In fact, even assuming, *arguendo*, the validity of Examiner's characterization of the UI/displays (120) as being a "multi-modal application" with a first and second mode process, Examiner has not even demonstrated how the multi-modal capture controller (230) *manages and synchronizes information exchanges* between the different UIs/displays (120). In any event, it is respectfully submitted that Toomey does not even suggest that the multi-modal capture controller (230) *manages and synchronizes information exchanges* between the different UIs/displays (120).

Examiner further contends that the I/O interface (210) of Toomey discloses *an API (application program interface) that allows the first and second mode processes to register their respective active commands and corresponding actions with the multi-modal shell*, as recited in claim 1. Applicant respectfully disagrees with this characterization. Toomey expressly discloses that the I/O interface (21) simply routes inputs/outputs to/from the displays (120) and different controllers (220, 230 and 240), depending on whether the system is capturing a meeting, augmenting a previously captured meeting or replaying a meeting (see, Col. 5, lines 48-55). There is simply nothing in Toomey that discloses or suggests that the I/O interface (201) *allows the first and second mode processes (i.e., the displays (120) as characterized by Examiner) to register their respective active commands and corresponding actions with the multi-modal shell (i.e., the capture controller (230) as characterized by Examiner)*. More specifically, by way of example, Toomey does not suggest that the I/O interface (21) registers active commands and corresponding actions - - the I/O interface merely routes I/O events of the system.

Moreover, with regard to claims 19 and 29, Toomey clearly does not disclose or suggest the methods steps of:

*receiving a command in a first modality;*

*triggering (i) an action in the first modality and (ii) a corresponding action in at least a second modality, based on the received command; and*

*updating application states or device states associated with the first modality and the second modality.*

In rejecting claims 19 and 29, Examiner relies essentially on the same basis for the rejection of claims 1 and 2. However, Examiner does not specifically address (or even point to portions of Toomey that disclose or suggest) the claimed steps of *receiving a command in a first modality* or *triggering (i) an action in the first modality and (ii) a corresponding action in at least a second modality, based on the received command*, as recited in claims 19 and 29. Thus, the rejection of claims 19 and 29 appears to be legally deficient on its face.

Furthermore, it is respectfully submitted that Examiner's reliance on Col. 2, lines 56-57 and Col. 9, line 55 of Toomey as disclosing the step of *updating application states or device states associated with the first modality and the second modality*, is misplaced. The "updating of a state" disclosed by Toomey is nothing more than the process of updating a multi-modal document representation of a meeting by adding or replacing recorded meeting events.

updating

In stark contrast, the inventions of claims 19 and 29 are directed to methods for synchronizing multi-modal interactions wherein the application or device states of applications or devices of different modalities are updated in response to a command executed in a first

modality, which triggers the execution of a corresponding command in a second modality.

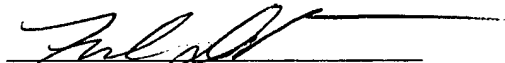
Toomey is not even remotely related to the inventions of claims 19 and 29.

Therefore, for at least the above reasons, claims 1, 19 and 29 (and all pending rejected claims that depend from claims 1, 19 or 29) are patentably distinct and patentable over Toomey. Accordingly, withdrawal of the claim rejections under 35 U.S.C. 102 is respectfully requested.

**Claim Rejections - 35 U.S.C. § 103**

Claim 10 stands rejected under 35 U.S.C. § 103(a) as being anticipated by Toomey. Claim 10 depends from claim 1. Claim 10 is patentable and non-obvious over Toomey for at least the same reasons give above for claim 1. Therefore, withdrawal of the rejection is respectfully requested.

Respectfully submitted,



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